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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,638	12/19/2001	John Bankier	E003-1101US0	5044
48789 7590 03/19/2008 LAW OFFICES OF BARRY N. YOUNG 260 SHERIDAN AVENUE SUITE 410 PALO ALTO, CA 94306-2047				
EXAMINER				
TRUONG, LAN DAI T				
ART UNIT		PAPER NUMBER		
2152				
MAIL DATE		DELIVERY MODE		
03/19/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/029,638

**Applicant(s)**

BANKIER ET AL.

**Examiner**

LAN-DAI Thi TRUONG

**Art Unit**

2152

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 01 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 19-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10029638	12/19/2001	BANKIER ET AL.	E003-1101US0

LAW OFFICES OF BARRY N. YOUNG  
260 SHERIDAN AVENUE  
SUITE 410  
PALO ALTO, CA 94306-2047

**EXAMINER**

LAN-DAI Thi. TRUONG

**ART UNIT****PAPER**

2152

20080313

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner for Patents**

The attachment is supplemental Final-Rejection to replace the Final-Rejection were mailed on 11/16/2007 for response to the errors (in 'Response to Arguments' section, pages 2-4) on the Final-Rejection were mailed on 11/16/2007.

/Bunjob Jaroenchonwanit/  
Supervisory Patent Examiner, Art Unit 2152

### **Supplemental Action**

#### **DETAILED ACTION**

1. In response to applicant's requests regarding the last Office action, the following corrective action is taken.

The period for reply of one MONTH(S) set in said Office Action is restarted to begin with the mailing date of this Office Action, see (Rule 710.06[R-6])

2. This action is response to Applicant's arguments filed 08/23/2007. Claims 1-17, 19-56 are pending; claims 1, 11, 14, 19, 25, 28, 33, 37, 43, 51-56 are amended; claim 18 is cancelled

### **Response to Arguments**

3. Applicant's arguments filed 08/23/2007 have been fully considered, but they are moot in view of the new ground(s) of rejections

### **Claim rejections-35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 6-10, 12-15 are rejected under 35 U.S.C 103(a) as being un-patentable over Lin et al. (U.S. 2002/0073211) in view of Frolund et al. (U.S. 6,381,617) and further in view of Judd et al. (U.S. 5,958,064)**

**Regarding claim 1:**

Lin discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for processing electronic transactions between a client and a server of a computer network, the method comprising:

establishing a communications connections between the network client and the network server at an electronic transaction assurance (eTA) system: (in Lin's communication system, communications connections between network users and web servers are established/ and controlled at "a load balancer" (which reads on an electronic transaction assurance (eTA) as claimed): figure 2, items 128, 102, 104, 106, 130, 132, and 134: abstract; figure 6; [0027])

receiving a request message from the client at the eTA, the request message relating to an aspect of electronic commerce transaction: (Lin's system supports for online transactions (e.g. online shopping) therefrom the load balancer receives browser requests from the network users for online transactions and forwards the browser requests to desired web servers: [0028]; [0032])

extracting data from the request message to record a state of the electronic commerce transaction: (communication sessions between the network users and the web servers are monitored and session information is sent to/ and stored in a state server as retaining communication sessions records: Lin: [0028], lines 11-15)

However, Lin does not explicitly disclose detecting that a failure has occurred with respect to the electronic commerce transaction

In analogous art, Frolund discloses step of detecting electronic commerce transaction failures (e.g. failure of reservation/ or car rentals/ finance transactions...etc.), see (abstract, lines 12-15; figure 4, steps 88 and 82; column 3, lines 47-52; column 5, lines 48-51; column 6, lines 38-40; column7, lines 1-10, 31-54)

determining whether an outcome of the electronic commerce transaction in relate to the request message has failed: (Frolund's system is capable to detect if transaction progresses are success/ or fail to provide recovery actions to cover the failures: (abstract; figure 3, items 216, 222; column 3, lines 37-52, 63-64; column 6, lines 38-48, lines 60-67; column7, lines 1-10, 31-54)

determining actual state of the electronic commerce transaction at the failure: (Frolund discloses method of applying one of those techniques (e.g. heartbeat, pinging or time-out) to indicate if a failure occurs in halfway-transaction: figure 3, step 64; figure 4, step 82; column 6, lines 49-54)

selecting an appropriate recovery action to recover from the failure based upon said actual state: (a recovery action will be taken in response to recognized failure: Frolund: column7, 31-67; column 8, lines 14-32)

message masking the failure from the client: (Frolund teaches technique of masking communication failures: column 3, lines 63-64)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Frolund's ideas of detecting transactions failures if failure

occurs in halfway-transaction to provide appropriate recovery actions into Lin's system in order to increase efficiencies for data transmission system (e.g. guarantee completion for data transmission), see (Frolund: column 3, lines 20-30)

However, Lin- Frolund does not explicitly disclose transmitting a response message to the client in accordance with the recovery action by providing an expected response to the request message from the client

In analogous art, Judd discloses method for retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link purpose, see (column 2, lines 25-67)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Judd's ideas of retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link into Lin- Frolund's system in order to guarantee complete transaction, see (column 2, lines 1-16)

**Regarding claim 8:**

In addition to rejection in claim 1, Lin-Frolund-Judd further discloses discarding data that relates to a transaction state tat is stored at the server: (Lin: figure 5; [0028])

**Regarding claim 9:**

In addition to rejection in claim 1, Lin-Frolund-Judd further discloses determining whether an outcome of the transaction in relation to the request message has succeeded or failed comprises sending a query message to the server to inquire as to the state of the transaction: (Lin: [0029]; [0035])

**Regarding claim 10:**

In addition to rejection in claim 1, Lin-Frolund-Judd further discloses re-directing to another server for recovery action: Lin discloses method for recovering failure of a webserver by re-directing a process to another webserver: (Lin: [0035])

**Regarding claim 12:**

In addition to rejection in claim 1, Lin-Frolund-Judd further discloses wherein the response message mask the failure from the client such that the client is oblivious to the failure: Judd: column 2, lines 25-67)

**Regarding claim 13:**

This claim is rejected under rationale of claim 12

**Regarding claims 6 and 7:**

In addition to rejection in claim 1, Lin-Frolund-Judd further discloses failure from error code in message and not receiving response message: (Frolund: figure 4, item 318)

**Regarding claim 14:**

Lin discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for processing electronic transactions between a client and a server of a computer network, the method comprising:

establishing communications connection between the network client and the network server at an electronic transaction assurance (eTA) system: (in Lin's communication system, communications connections between network users and web servers are established/ and controlled at "a load balancer" (which reads on an electronic transaction assurance (eTA) as claimed): figure 2, items 128, 102, 104, 106, 130, 132, and 134: abstract; figure 6; [0027])

initiating a series of processes at the eTA system, the processes including:



a transaction monitoring process wherein the eTA system monitors electronic commerce message exchanged between the client and the server in relation to a transaction: (in Lin's system, "a load balancer" (which reads on (eTA) as claimed) has capabilities of monitoring and controlling communication connections between plurality of network users and plurality of web servers: figure 2, items 128, 102, 104, 106, 130, 132, and 134: abstract; figure 6; [0027])

a state capture process wherein the eTA system captures and records information descriptions of one or more states of transaction: (communication sessions between the network users and the web servers are monitored and session information is sent to/ and stored in a state server as retaining communication sessions records: Lin: [0028], lines 11-15)

However, Lin does not explicitly disclose detecting that a failure has occurred with respect to the transaction and the actual state of the transaction at failure

In analogous art, in Frolund discloses method of applying one of those techniques (e.g. heartbeat, pinging or time-out) to indicate whether a failure occurs in halfway-transaction, see (figure 3, step 64; figure 4, step 82; column 6, lines 49-54)

an outcome determination process determines the extent to which the server has processed the transaction: (Frolund's system is capable to detect if transaction progresses are success/ or fail to provide recovery actions to cover the failures by extending to a server has the same function: (column 7, lines 10-19)

a transaction recovery process recovers the transaction from the failure based upon said actual state: (a recovery action will be taken in response to recognized failure: Frolund: column 7, 31-67; column 8, lines 14-32)

a failure masking process: (Frolund teaches technique of masking communication failures: column 3, lines 63-64)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Frolund's ideas of detecting transactions failures whether failure occurs of halfway-transaction to provide appropriate recovery actions into Lin's system in order to increase efficiencies for data transmission system (e.g. guarantee completion for data transmission), see (Frolund: column 3, lines 20-30)

However, Lin- Frolund does not explicitly disclose sending the response message to the client that is an expected response that the client would have received has failure not occurred

In analogous art, Judd discloses method for retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link purpose, see (column 2, lines 25-67)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Judd's ideas of retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link into Lin- Frolund's system in order to guarantee complete transaction, see (column 2, lines 1-16)

**Regarding claim 15:**

Lin-Frolund-Judd discloses a method as discuss in claim 14, which further includes, wherein the state capture process comprises capturing packets contained in electronic request messages from the client to the server and storing the packets with an identifier associated with a particular transaction between the client and the server: (Lin discloses "Session ID" which is

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equivalent to “identifier associated with transaction between the client and the server”: figure5, item 510)

**Claims 2-5 are rejected under 35 U.S.C 103(a) as being un-patentable over Lin-Frolund-Judd in view of Watson et al. (U.S. 5,991,750)**

**Regarding claims 2-3:**

Lin-Frolund-Judd discloses the invention substantially as disclosed in claim 1, but does not explicitly teach identifying a transaction type associated with the electronic transaction

In analogous art, Watson discloses method for associating transaction types and requesting types: (column 10, lines 10-67; column 11, lines 1-20; claim 13)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Watson’s ideas of associating transaction types and requesting types into Lin-Frolund-Judd’s system in order to provide an efficient account manager system, see (Watson: column 3, lines 35-44)

**Regarding claims 4-5:**

Those claims are rejected under rationale of claim 1

**Claims 16-17 are rejected under 35 U.S.C 103(a) as being un-patentable over Lin-Frolund-Judd in view of Phaal (U.S. 6,138,159)**

**Regarding claim 16:**

Lin-Frolund-Judd discloses the invention substantially as disclosed in claim 14, but does not explicitly teach wherein the failure detection process comprises monitoring for a failure code

that is embedded in a response message from the server, wherein the failure code indicates that a failure has occurred

In analogous art, Phaal discloses method for detecting failure in network upon on failure to respond within a predetermined period, see (column 2, lines 61-67)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Phaal's ideas of determining whether the transaction in relation to the request message has succeeded or failed into Lin-Frolund-Judd's system in order to be able to discover the broken connection to provide connection failure recovery in order to process of client request without interrupt notwithstanding failure of individual host, see (Phaal: abstract, lines 1-10)

**Regarding claim 17:**

Lin-Frolund-Judd discloses the invention substantially as disclosed in claim 14, but does not explicitly teach wherein the failure detection process comprises monitoring for a response message from the server and deeming that a failure has occurred if a response message is not received within a predetermined time span: (Phaal discloses method for detecting failure in network upon on failure to respond within a predetermined period: column 2, lines 61-67)

**Claim 11 is rejected under 35 U.S.C 103(a) as being un-patentable over Lin-Frolund-Judd in view of Kim et al. (U.S. 2001/0011235)**

**Regarding claim 11:**

Lin-Frolund-Judd discloses the invention substantially as disclosed in claim 1, but does not explicitly teach recording the contents of the shopping cart

In analogous art, kim discloses method of recording customer's shopping carts, see ([0022])

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine kim's ideas of recording customer's shopping carts into Lin-Frolund-Judd's system in order to provide more benefits for online-shopping's users , see (kim: abstract, lines 1-10)

**Claims 19, 21-32, 51-52 are rejected under 35 U.S.C 103(a) as being un-patentable over Lin-Frolund-Judd in view of Watson et al. (U.S. 5,991,750)**

**Regarding claim 19:**

Lin discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for processing electronic transactions between a client and a server of a computer network, the method comprising:

establishing a communications connections between the network client and the network server at an electronic transaction assurance (eTA) system: (in Lin's communication system, communication connections between network users and web servers are established/ and controlled at "a load balancer" (which reads on an electronic transaction assurance (eTA) as claimed): figure 2, items 128, 102, 104, 106, 130, 132, and 134: abstract; figure 6; [0027])

receiving a request message from the client at the eTA, which is responsible for the communications between the network client and the network server: (the load balancer receives browser requests from the network users: Lin: [0028]; [0032])

preserving a state of the electronic commerce transaction; updating the transaction type and message parameters in response to the processing of the electronic commerce transaction:

(communication sessions between the network users and the web servers are monitored and session information is sent to/ and stored in a state server as retaining communication sessions records: Lin: [0028], lines 11-15; [0038])

logging and reporting relevant information about the state and the message parameter of the transaction commerce transaction: (session information is stored in state server as retaining records of sessions: Lin: [0028], lines 11-15; [0038])

However, Lin does not explicitly disclose indicating a detect failure in a network back-end system or network communications connection in response to inspection the content of a received response from back-end system servers or lack of a received response within a predetermined time period

In analogous art, in Frolund discloses method of applying one of those techniques (e.g. heartbeat, pinging or time-out) to indicate whether failure occurs in halfway-transaction, see (figure 3, step 64; figure 4, step 82; column 6, lines 49-54)

determining the correct outcome of the electronic commerce transaction as affected by the detected failure and the state of the electronic commerce transaction at the failure, and selecting an appropriate action based upon said state to recover from the detected: (Frolund's system is capable to detect if transaction progresses are success/ or fail to provide recovery actions to over the failures. Furthermore, Frolund discloses method of applying one of those techniques (e.g. heartbeat, pinging or time-out) to indicate if failure occurs in halfway-transaction, see (figure 3, step 64; figure 4, step 82; column 6, lines 49-54; abstract; figure 3, items 216, 222; column 3, lines 37-52, 63-64; column 6, lines 38-48, lines 60-67; column 7, lines 1-10, 31-54)

a failure masking process: (Frolund teaches technique of masking communication failures: column 3, lines 63-64)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Frolund's ideas of detecting if transactions failures occur in halfway-transaction to provide appropriate recovery actions into Lin's system in order to increase efficiencies for data transmission system (e.g. guarantee completion for data transmission), see (Frolund: column 3, lines 20-30)

However, Lin- Frolund does not explicitly disclose providing a response message to the network client corresponding to the correct outcome;

In analogous art, Judd discloses method for retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link purpose, see (column 2, lines 25-67)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Judd's ideas of retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link into Lin- Frolund's system in order to guarantee complete transaction, see (column 2, lines 1-16)

However, Lin-Frolund- Judd does not explicitly discloses identifying a transaction type and message parameters included in the received message, thereby defining electronic commerce transaction to which the message relates

In analogous art, Watson discloses method for determining transaction types for associating with requesting types: (abstract, lines 11-13; column 3, lines 60-67; column 10, lines 10-67; column 11, lines 1-20; claim 13)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Watson's ideas of associating transaction types and requesting types into Lin-Frolund- Judd's system in order to provide an efficient communication system (e.g. ability of reconciliation of a specific transaction from a previous transaction), see (Watson: column 3, lines 60-67)

**Regarding claims 51-52:**

Those claims are rejected under rationale of claim 19

**Regarding claim 21:**

In addition to rejection in claim 19, Lin-Frolund-Judd-Watson further discloses wherein indicating a detected failure comprising monitoring operation of hardware and software components of the communication connection: (Lin: [0028]; [0035])

**Regarding claim 22:**

In addition to rejection in claim 21, Lin-Frolund-Judd-Watson further discloses wherein monitoring comprises intercepting responses from the back-end servers and inspecting the enclosed messages to check for failures and formulating an appropriate response and sending it to the network client: (Judd: column 2, lines 25-67)

**Regarding claim 23:**

In addition to rejection in claim 19, Lin-Frolund-Judd-Watson further discloses wherein the network message are transmitted in accordance with Internet protocol processing: (Lin: figure 2, item 108)

**Regarding claim 24:**



In addition to rejection in claim 19, Lin-Frolund-Judd-Watson further discloses training the transaction assurance system to classify and identify transaction types using a supervised machine learning technique: (Lin: figure 5) thereby enabling the system to be deployed in different e-business environments with different transaction models: (Lin: [0002])

**Regarding claim 25**

In addition to rejection in claim 24, Lin-Frolund-Judd-Watson further discloses wherein a transaction model is associated with a type of electronic commerce transaction such that the transaction model defines expected network activity with respect to the associated type of electronic commerce transaction: (Lin: figure 5; [0028]; [0035])

**Regarding claim 26:**

In addition to rejection in claim 25, Lin-Frolund-Judd-Watson further discloses wherein the expected network activity comprises response message that are expected from the server in response to request message from the client: (Frolund: column 3, lines 63-64)

**Regarding claim 27:**

In addition to rejection in claim 25, Lin-Frolund-Judd-Watson further discloses detecting a failure in a network backend system by comparing a response message from the backend system to an expected response message defined in a transaction model: (Judd: column 2, lines 25-67)

**Regarding claim 28:**

This claim is rejected under rationale of claim 27

**Regarding claim 29:**

Those claims are rejected under rationale of claim 19

**Regarding claim 30:**

In addition to rejection in claim 25, Lin-Frolund-Judd-Watson further discloses wherein transaction model defines suspicious activity and additionally comprising determining that fraudulent activity is present when suspicious activity is encountered in a transaction: (Watson: column 1, lines 14-23)

**Regarding claim 31:**

In addition to rejection in claim 25, Lin-Frolund-Judd-Watson further discloses wherein a transaction model defines a billing charge for a type of transaction and additionally comprising tabulating billing charges based on the number of times that actual transaction defined in a transaction model is encountered: (Watson: figure 5)

**Regarding claim 32:**

In addition to rejection in claim 19, Lin-Frolund-Judd-Watson further discloses wherein the system permits resumption of communication with wireless clients when the wireless clients reconnect to the system, without having resubmit requests they made before disconnecting from the system due to losing wireless signal: (Frolund: column7, 31-67; column 8, lines 14-32)

**Claim 20 is rejected under 35 U.S.C 103(a) as being un-patentable over Lin- Lin-Frolund-Judd-Watson in view of Tanner et al. (U.S. 2002/0070976)**

**Regarding claim 20:**

Lin-Frolund-Judd-Watson discloses the invention substantially as disclosed in claim 19, but does not explicitly teach wherein the communications connection is a secure connection

In analogous art, Tanner discloses “secure channel” which is equivalent to “secure connection” used for transaction between user account and vendor account, see ([0051])

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Tanner's ideas of using secure channel for process transaction with Lin-Frolund-Judd-Watson's system in order to provide secure network

**Claims 43-45, 47-50 and 55-56 are rejected under 35 U.S.C 103(a) as being unpatentable over Lin-Frolund-Judd-Watson in view of Blott et al. (U.S. 6,341,285)**

**Regarding claim 43:**

Lin discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for processing electronic transactions between a client and a server of a computer network, the method comprising:

establishing a communications connections between the network client and the network server: (in Lin's communication system, communications connections between network users and web servers are established/ and controlled at "a load balancer" (which reads on an electronic transaction assurance (eTA) as claimed): figure 2, items 128, 102, 104, 106, 130, 132, and 134: abstract; figure 6; [0027])

receiving a request message from the client comprising a request for webpage such that the request identifies a transaction type and message parameter, thereby defining an electronic commerce transaction to which the message relates: (Lin's system supports for online transactions (e.g. online shopping) therefrom the load balancer receives browser requests from the network users for online transactions and forwards the browser requests to desired web servers: [0028]; [0032])

preserving a state of the electronic transaction and updating electronic transaction type and message parameters in response to processing of the electronic transaction: (communication

sessions between the network users and the web servers are monitored and session information is sent to/ and stored in a state server as retaining communication sessions records: Lin: [0028], lines 11-15; [0038])

However, Lin does not explicitly disclose resuming the electronic transaction from a failure based upon the preserved state at the failure

In analogous art, in Frolund discloses method of applying one of those techniques (e.g. heartbeat, pinging or time-out) to indicate whether failure occurs in halfway-transaction, see (figure 3, step 64; figure 4, step 82; column 6, lines 49-54)

masking the failure: (Frolund teaches technique of masking communication failures: column 3, lines 63-64)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Frolund's ideas of detecting if transactions failures occur in halfway-transaction to provide appropriate recovery actions into Lin's system in order to provide an efficiency data transmission system (e.g. guarantee completion for data transmission), see (Frolund: column 3, lines 20-30)

However Lin- Frolund does not explicitly disclose providing expected response to the request message from the network client

In analogous art, Judd discloses method for retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link purpose, see (column 2, lines 25-67)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Judd's ideas of retransmitting expected data frame to replace the

previous error data frame which was discarded for recovering faulty link into Lin- Frolund's system in order to guarantee complete transaction, see (column 2, lines 1-16)

However, Lin- Frolund- Judd does not explicitly disclose generating transaction identifier associated with each electronic commerce transaction request message received from the network client; and storing the transaction identifier information with transaction type and message parameters at back end databases

In analogous art, Watson discloses method for determining transaction types, and storing transaction types with their associated transaction identifiers, see (abstract, lines 11-13; column 3, lines 60-67; column 10, lines 10-67; column 11, lines 1-20; claim 13; figure 3; figure 5)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Watson's ideas of associating transaction types and requesting types into Lin- Frolund- Judd's system in order to provide increase efficiencies and flexibilities for online business system (e.g. ability of reconciliation of a specific transaction from a previous transaction), see (Watson: column 3, lines 60-67)

However Lin- Frolund Judd- Watson does not explicitly disclose adding code to the webpage served to the network client that records the time when a request message is sent by the network client, indicating that start of an electronic commerce transaction, and when a response message is received by the network client, indicating the end of said electronic commerce transaction

In analogous art, Blott discloses technique of including timestamps in transmitting data to determine performances of transactions, see (abstract)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Blott's ideas of using timestamps included in transmitting data to determine performances of transactions into Lin- Frolund -Judd- Watson system in order to employ well-know technique into Lin- Frolund Judd- Watson's for saving resources and development time

**Regarding claims 55-56:**

Those claims are rejected under rationale of claim 43

**Regarding claim 44:**

In addition to rejection in claim 43, Lin-Judd- Watson- Blott further discloses wherein the transaction identifier stored in a database table of the back end database: (Watson: figure 5)

**Regarding claim 45:**

In addition to rejection in claim 43, Lin-Judd- Watson- Blott further discloses wherein storing the transaction identifier comprises inserting information into the back end server database using an applet executing at the network client: (Watson: column 12, lines 5-47)

**Regarding claim 50:**

In addition to rejection in claim 43, Lin-Judd- Watson- Blott further discloses communicating information relating to the communications connection at the selected node to one or the remaining eTA nodes: (Lin: [0028]; [0032])

detecting the removal or failure of the selected eTA node from operation during processing of the received network message: (Lin: [0029]; [0035])

preserving the state of the selected eTA node processing with respect to the received network message in one or more nodes of the eTA system: (Lin: [0029]; [0035])

moving the communications connection from the removed selected node to one of the remaining eTA nodes that are still operating in accordance with the preserved node state such that the network client and network server that were using the selected eTA node do not see any interruption in their communications: (Lin: [0029]; [0035])

**Regarding claim 47:**

In addition to rejection in claim 43, Lin-Judd- Watson- Blott further discloses storing the transaction identifier comprises inserting information into information into back end server database using a browser program at the network client: (Watson: figure 5)

**Regarding claim 48:**

In addition to rejection in claim 43, Lin-Judd- Watson- Blott further discloses wherein the eTA system includes multiple eTA nodes: (Lin: figure 6, items 112, 114, 116, 102, 104, 106, 110)

**Regarding claim 49:**

In addition to rejection in claim 48, Lin-Judd- Watson- Blott further discloses wherein a received network message is directed to one of available eTA nodes: (figure 6; figure 13)

**Claim 46 is rejected under 35 U.S.C 103(a) as being un-patentable over Lin- Lin-Judd- Watson- Blott in view of Shkedi (U.S. 6,832,207)**

**Regarding claim 46:**

Lin-Judd- Watson- Blott discloses the invention substantially as disclosed in claim 37, but does not explicitly teach storing the transaction identifier comprises inserting information into the back end server database using an Internet cookie, see (Shkedi: column 4, lines 20-27)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Shkedi's ideas of storing information in a cookie with Lin-Judd-Watson- Blott's system in order to be able to use the cookie as recognition message, see (Shkedi: column 4, lines 20-27)

**Claims 37-42, 53-54 are rejected under 35 U.S.C 103(a) as being un-patentable over Lin- Frolund- Judd in view of Watson et al. (U.S. 5,991,750)**

**Regarding claim 37:**

Lin discloses the invention substantially as claimed, including a method, which can be implemented in a computer hardware or software code for processing electronic transactions between a client and a server of a computer network, the method comprising:

establishing a communications connections between the network client and the network server at an electronic transaction assurance (eTA) system: (in Lin's communication system, communications connections between network users and web servers are established/ and controlled at "a load balancer" (which reads on an electronic transaction assurance (eTA) as claimed): figure 2, items 128, 102, 104, 106, 130, 132, and 134: abstract; figure 6; [0027])

receiving a network related to said electronic commerce transaction at the eTA, which is responsible for the communications between the network client and the network server: (the load balancer receives browser requests from the network users: Lin: [0028]; [0032])

preserving a state of the electronic commerce transaction; updating electronic commerce transaction: (communication sessions between the network users and the web servers are monitored and session information is sent to/ and stored in a state server as retaining communication sessions records: Lin: [0028], lines 11-15; [0038])



However, Lin does not explicitly disclose resuming the electronic transaction from a failure based upon the preserved state at the failure

In analogous art, in Frolund discloses method of applying one of those techniques (e.g. heartbeat, pinging or time-out) to indicate whether failure occurs in halfway-transaction, see (figure 3, step 64; figure 4, step 82; column 6, lines 49-54)

masking the failure: (Frolund teaches technique of masking communication failures: column 3, lines 63-64)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Frolund's ideas of detecting if transactions failures occur in halfway-transaction to provide appropriate recovery actions into Lin's system in order to increase efficiencies for data transmission system (e.g. guarantee completion for data transmission), see (Frolund: column 3, lines 20-30)

However Lin- Frolund does not explicitly disclose providing expected response to the received message

In analogous art, Judd discloses method for retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link purpose, see (column 2, lines 25-67)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Judd's ideas of retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link into Lin- Frolund's system in order to guarantee complete transaction, see (column 2, lines 1-16)

However, Lin- Frolund- Judd does not explicitly disclose identifying a transaction type and message parameters included in the received message, thereby defining electronic commerce transaction to which the message relates

In analogous art, Watson discloses method for determining transaction types for associating with requesting types: (abstract, lines 11-13; column 3, lines 60-67; column 10, lines 10-67; column 11, lines 1-20; claim 13)

generating transaction identifier associated with the received message and storing the transaction identifier information with transaction type and message parameters at back end databases: (Watson: figure 3; figure 5)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Watson's ideas of associating transaction types and requesting types into Lin- Frolund- Judd's system in order to increase efficiencies for on-line business system (e.g. ability of reconciliation of a specific transaction from a previous transaction), see (Watson: column 3, lines 60-67)

**Regarding claims 53-54:**

Those claims are rejected under rationale of claim 37

**Regarding claim 38:**

In addition to rejection in claim 37, Lin- Frolund- Judd-Watson further discloses wherein the transaction identifier is stored in an existing field of the back end database: (Watson: figure 5)

**Regarding claim 39:**

This claim is rejected under rationale of claim 38

**Regarding claim 40:**

In addition to rejection in claim 37, Lin- Frolund- Judd-Watson further discloses wherein storing the transaction identifier comprises inserting information into the back end server database using an applet executing at the network client: (Watson; column 12, lines 5-47)

**Regarding claim 41:**

In addition to rejection in claim 37, Lin- Frolund- Judd-Watson further discloses storing the transaction identifier comprises inserting information into back end server database using an internet cookie: (Lin: [0042])

**Regarding claim 42:**

In addition to rejection in claim 37, Lin- Frolund- Judd-Watson further discloses storing the transaction identifier comprises inserting information into back end server database using browser program at the network client: (Lin: [0042])

**Claim 33 is rejected under 35 U.S.C 103(a) as being un-patentable over Lin et al. (U.S. 2002/0073211) in view of Kashyap (U.S. 2002/0087912) and further in view of Barker (U.S. 6,065,017) and further in view of Judd et al. (U.S. 5,958,064)**

**Regarding claim 33:**

Lin discloses the invention substantially as claimed, including a system, which can be implemented in a computer hardware or software code for processing electronic transactions between a client and a server of a computer network, the method comprising:

a communications processor that receives electronic commerce transaction messages over a computer network between a customer at a client node and a server node: (in Lin's system, communications connections between network users and web servers are established/ and

controlled at a load balancer; wherein the load balancer receives browser requests from the network users: Lin: [0028]; [0032]: figure 2, items 128, 102, 104, 106, 130, 132, and 134: abstract; figure 6; [0027])

a policy-based policy manager engine that manages electronic commerce transaction message process: (in Lin's system, load balancer receives requests from users and distributes these requests among web-servers according to the availability of the webserver based upon traffic flow rate conditions: [0047], lines 7-9; [0052], lines 7-13; [0053])

However, Lin does not explicitly disclose step of allowing users of the system to define message processing policies that specify conditions and actions to be taken when any of the specified policy conditions is true

In analogous art, Barker discloses database recovery system which is accessible and managed by a network administrator, see (column 7, lines 60-67; column 16, lines 1-37; column 1, lines 37-43; column 2, lines 15-21)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Barker's ideas of providing system which accessible by users to define recovery policies into Lin's system in order to increase conveniences for system user

However, Lin- Barker does not explicitly disclose policy conditions are to provide transparent failover

In analogous art, Kashyap discloses a fail-over policy, see ( abstract; [0026])

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kashyap's ideas of applying fail-over policy for recovering

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connection failures into Lin- Barker's system in order to provide high-reliable communication connection, see (Kashyap, [0005])

However, Lin- Barker- Kashyap does not explicitly disclose masking failure from the customer by providing a response message

In analogous art, Judd discloses method for retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link purpose, see (column 2, lines 25-67)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Judd's ideas of retransmitting expected data frame to replace the previous error data frame which was discarded for recovering faulty link into Lin- Barker- Kashyap's system in order to guarantee complete transaction, see (column 2, lines 1-16)

**Claim 34 is rejected under 35 U.S.C 103(a) as being un-patentable over Lin- Kashyap-Barker- Judd in view of Phaal (U.S. 6,138,159)**

**Regarding claim 34:**

Lin-Kashyap-Barker- Judd discloses the invention substantially as disclosed in claim 33, but does not explicitly teach if needed to keep the customer informed of any processing delays and keep the customer engaged in a message dialog to enhance the customer's interaction experience with an e-business Web site at the server node

In analogous art, Phaal discloses normally client computer directs communication to the assigned server, but if a failure condition of assigned server is detected, a new server is assigned to service the client computer: (abstract, lines 11-20)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Phaal's ideas of determining whether the transaction in relation to the request message has succeeded or failed with Lin-Kashyap-Barker- Judd's system in order to be able to discover the broken connection to provide connection failure recovery in order to process of client request without interrupt notwithstanding failure of individual host, see (Phaal: abstract, lines 1-10)

**Claims 35-36 are rejected under 35 U.S.C 103(a) as being un-patentable over Lin-Kashyap-Barker- Judd - Phaal in view of Wallach et al. (U.S. 6,292,905)**

**Regarding claim 35:**

Lin-Kashyap-Barker- Judd - Phaal discloses the invention substantially as disclosed in claim 34, but does not explicitly teach policy manager engine

In analogous art, Wallach discloses the replicated database to provide failure connection recovery rules: (column 5, lines 65-67; column 6, lines 1-10; figure 1, items 88a-88c)

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Wallach's ideas of using the replicated database to provide failure connection recovery rules with Lin-Kashyap-Barker- Judd - Phaal's system in order to provide to provide a improvement of performance of network such as uninterrupted connection, see (Wallach: column 2, lines 33-47)

**Regarding claim 36:**

In addition to rejection in claim 35, Lin-Kashyap-Barker- Judd – Phaal- Wallach further discloses wherein at least one of the policy manager engines includes a transaction model that is

formulated and built to enable tracking processing of an electronic commerce transaction and storing transaction state, and sharing state with other nodes: (Lin: [0028], lines 11-15; [0038])

The prior arts made of records and not relied upon are considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "Highly available transaction failure detection and recovery for electronic commerce transactions": 6018805; 6108700; 20020147797; 5287501; 6335972; 6249866; 20040230660

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **Conclusions**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan-Dai Thi Truong whose telephone number is 571-272-7959. The examiner can normally be reached on Monday- Friday from 8:30am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob A. Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated

02/25/2007

/Bunjob Jaroenchonwanit/  
Supervisory Patent Examiner, Art Unit 2152



